IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

		Atty. Docket: HOFFMAN9
In re Application of:	)	Conf. No.: 2518
Arnold HOFFMAN et al.	)	Art Unit: 1614
Appln. No.: 10/626,326	)	Examiner: J. D. Anderson
Filed: June 18, 2003	)	Washington, D.C.
For: REDDOX THERAPY FOR TUMORS	)	

DECLARATION UNDER 37 CFR §1.132

Honorable Commissioner for Patents
U.S. Patent and Trademark Office
Customer Service Window
Randolph Building, Mail Stop **Amendment**
401 Dulany Street
Alexandria, VA 22314

Sir:

I, Lee M. SPETNER, hereby declare and state as follows:

I am a founding scientist of Redoxia Israel, Ltd. and my educational and professional experience is presented in the curriculum vitae attached hereto.

The experiments described below were designed by me conducted under my supervision, and I can attest of my own personal knowledge that all the results reported herein are true and accurate.

Human Mx-1 breast cancer cells were treated with various combinations of four therapeutic compounds/agents, DSF, DSO, curcumin and carmustine. In each well containing the MX-1

breast cancer cells, the therapeutic compounds were added to yield the appropriate concentrations (in Molar). Radioactive ^{3}H-thymidine was added one day later. Cell proliferation was measured by radioactive counts. Negative control cells were untreated cells and positive control cells were treated with $10^{-5}M$ doxorubicin. The results are shown below in Figure 1.

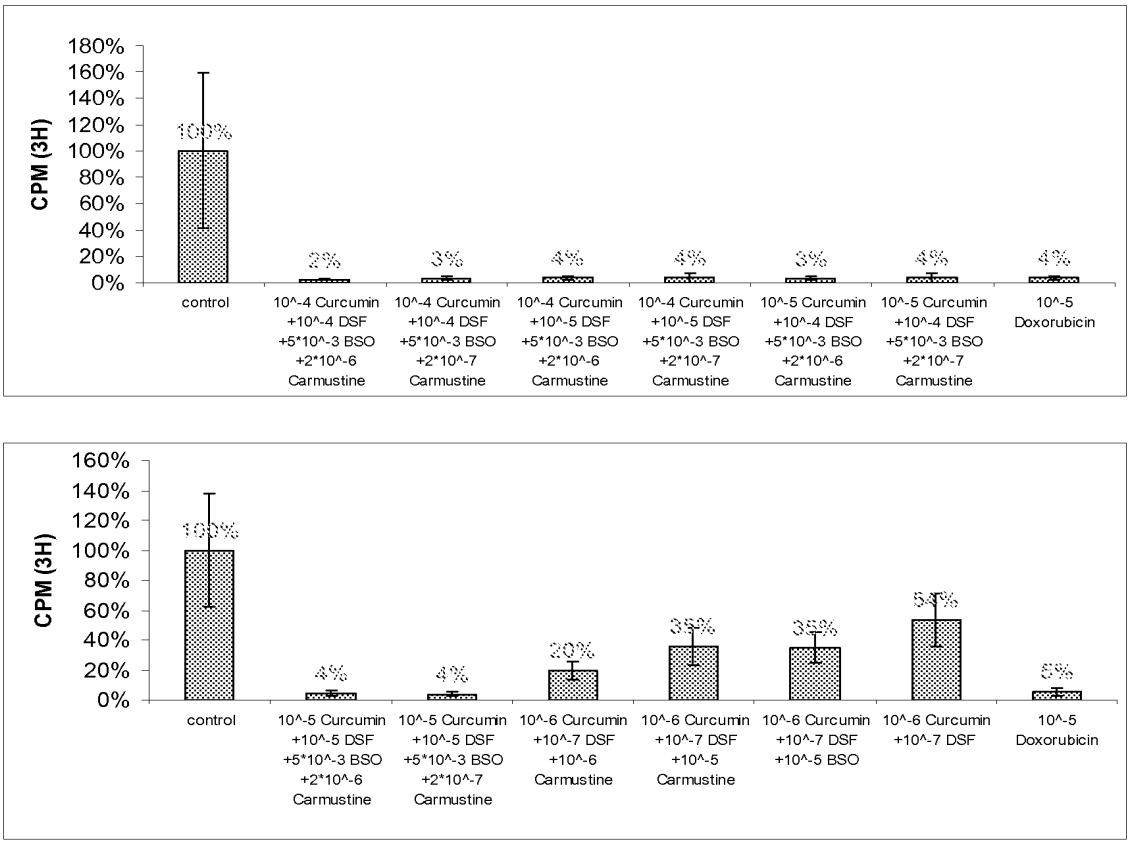

Fig. 1

MX-1 breast cancer cells were also treated with various therapeutic compounds which were added to each well containing MX-1 cells to yield the appropriate concentrations for each of the treatments 1-13 listed below in Table 1. Radioactive ^{3}H-

thymidine was added one day later. Negative control cells were untreated and positive control cells were treated with 10^{-5}M doxorubicin.

Table 2

Trtmnt No.	DSF	BCNU	BSO	Curcumin	Na Glutamate	Ofloxacin	E*	VG*	F*
1	10^{-5}M	2×10^{-7}M	5×10^{-3}M	10^{-5}M			✓		
2	10^{-5}M		5×10^{-3}M	10^{-5}M			✓		
3	10^{-5}M			10^{-5}M				✓	
4	10^{-5}M	2×10^{-7}M		10^{-5}M	10^{-3}M			✓	
5	10^{-5}M	2×10^{-7}M		10^{-5}M	10^{-4}M			✓	
6	10^{-5}M	2×10^{-7}M		10^{-5}M	10^{-5}M			✓	
7	10^{-5}M	2×10^{-7}M		10^{-5}M				✓	
8	10^{-5}M		5×10^{-3}M	10^{-5}M		10^{-5}M	✓		
9	10^{-5}M		5×10^{-3}M	10^{-5}M		10^{-6}M	✓		
10	10^{-5}M			10^{-5}M	10^{-3}M	10^{-5}M		✓	
11	10^{-5}M	2×10^{-7}M							✓
12	10^{-6}M	2×10^{-7}M							✓
13	10^{-5}M					10^{-5}M			✓

Cell proliferation was measured by the radioactive counts. Figure 2 below shows the effect of substituting ofloxacin for carmustine (BCNU). Carmustine was used because it inhibited the GR enzyme. Ofloxacin does the same and is shown to be as effective. Compare treatments 8, 9 and 10 (Ofloxacin) with treatments 2, 4, 5, 6 and 7 (carmustine = BCNU) in Fig. 2, where the lower panel is a blow-up (magnification) of treatments 1-10 and PC (positive control) shown in the upper panel.

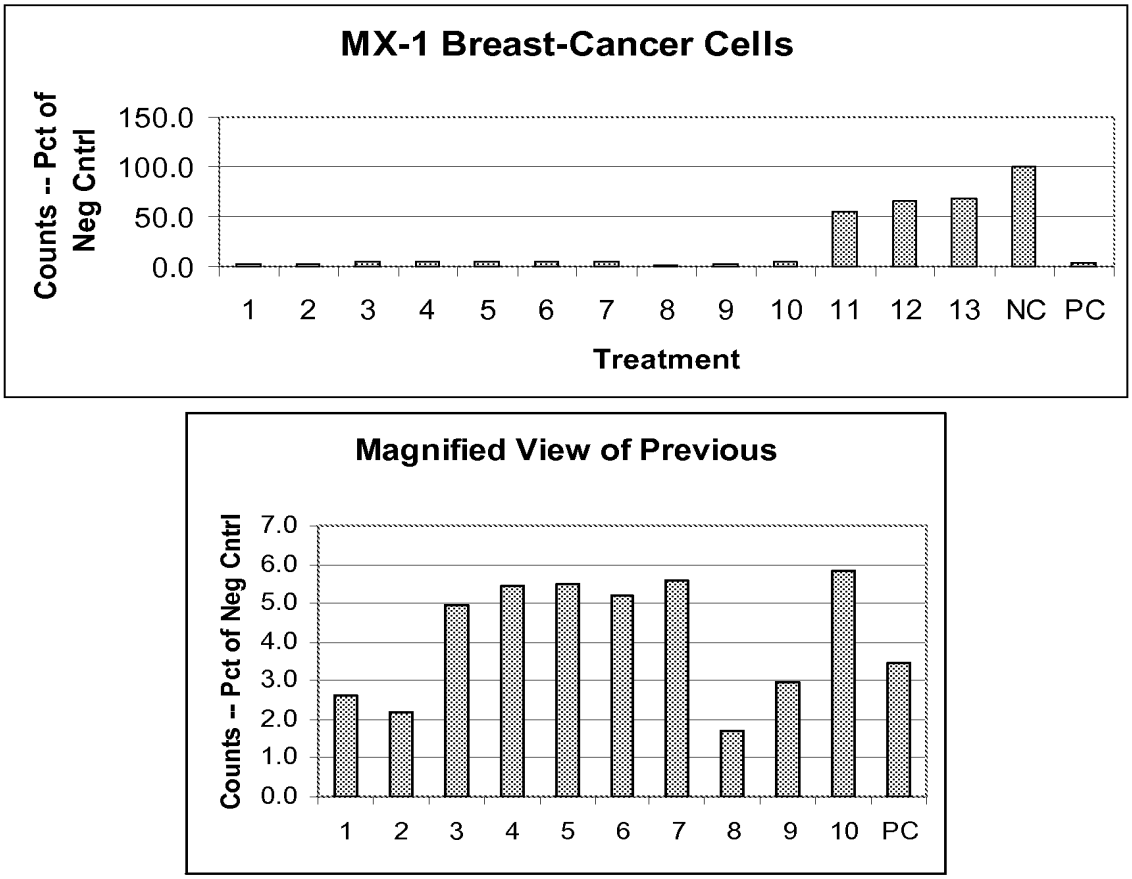

Fig. 2

Further experiments were conducted with a combination of four therapeutic agents, two of which were administered to mouse through the IV route and two through the oral route (PO). Figure 3 below shows mouse tumor growth with time of treatment with the four therapeutic agents, 20 mg/kg DSF (PO), 66.3 mg/kg BCNU (IV), 500mg/kg BSO (IV), and 250 mg/kg curcumin (PO). The positive control was treated with 20mg/kg daunomycin (IV). Tumor volume is shown as a percentage of initial tumor volume and are averages of four slower growing tumors. On the four faster growing tumors, the therapy had no effect.

The undersigned declares further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

1 Nov 07
Date

Lee M. SPETNER

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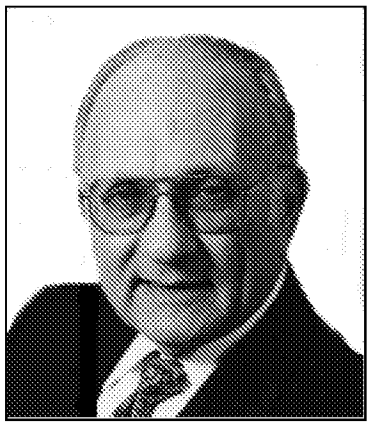
Brief CV Lee M. Spetner



Lee M. Spetner is currently one of the founding scientists of Redoxia Israel, Ltd. developing a redox therapy for treating cancer, the research in which he has been engaged for the past 10 years.

For 20 years he was with Eljim, Ltd, a company developing electronic systems for the Israeli military, and the Eljim facility of Elbit, after Elbit purchased Eljim. He was Technical Director of Elgim, Ltd from its inception, and later the managing director of the Eljim facility of Elbit. In these capacities he directed development of electronic countermeasure systems, a covert electronic navigation system, and other special projects involving electromagnetic propagation.

For 20 years he was with the Applied Physics Laboratory of the Johns Hopkins University, where he was Principle Physicist, and where he developed the theoretical underpinning of the propagation of electromagnetic waves over land and ocean necessary for the low-altitude guidance of missiles.

Teaching experience:
Engineering Mechanics, Washington Univ.
Physics, MIT
Physics, Howard University
Statistical Communication Theory, Johns Hopkins Univ.
Statistical Communication Theory, The Weizman Institute

Formal Education:
PhD in Physics, MIT 1950
BS Mechanical Engineering, Washington U, St Louis 1945